

**Proposed Loveland-Miamiville WWTP
Siting Workshop**

Thursday, May 13, 2004 at 9:00am

Agenda

I. Welcome

II. Introduction of Stakeholders

III. Purpose of Meeting

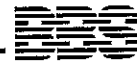
IV. Presentations

BBS Corp	Don Cuthbert/Alan Smith	(5-15min)
Ohio EPA	Ron Ware	(15-30min)
Ohio DNR	Terry Lee Ballard	(15-30min)
	Break	(5-10min)
BBS Corp	Don Cuthbert/Alan Smith	(30-60min)

V. Lunch **Please make your own arrangements** **(60min)**

VI. Site Evaluation Matrix and Explanation of Evaluation Criteria **(60-120min)**

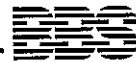
VII. Closing Remarks **(5-10min)**



WWTP Siting Loveland-Horner's Run FPA

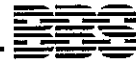
Stakeholder
Workshop

May 13, 2004



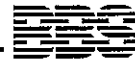
Driving Factors for Proposed WWTP

- Protection of MGS Wellfield Aquifer
- Protection of Water Quality
- Consolidation of Existing WWTPS
- Provide for Area Growth and Development



Prior Studies & Reports

- Miami-Goshen-Stonelick Wellfield Study (1991, Bennett & Williams)
- Wastewater Master Plan for Clermont County (1995, Harza)
- Loveland-Miamiville Wastewater Management Study (2002, B&V)
- Wastewater Master Plan Update (2003, Quest)



B&W (1991) Study Key Finding

- Individual On-Site Sewage Disposal Systems Pose the Greatest Threat to the Aquifer Supplying the Miami-Goshen-Stonelick Wellfield



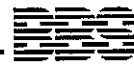
Harza (1995) Study Outcome

- Correct Public Health and WQ Impacts Associated with On-Site Systems
- Rehabilitate Existing CCSD WWTPs
- Present Regional Alternatives to Wastewater Management
- Provide Infrastructure for Future Growth and Development



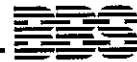
B&V (2002) Report Conclusions

- Consolidate WWTPs Within FPA and Construct One Regional Treatment System Near Miamiville
- Program to Replace/Expand Existing WWTPs Within CCSD
- Extend Sewer Service/Replace On-Site Systems



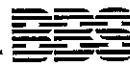
Quest (2003) Report Update

- Correct Public Health and WQ Impacts Associated with On-Site Systems
- Short-Term Rehabilitation of Existing WWTPs
- Support Additional Development Through Regionalized Wastewater Treatment

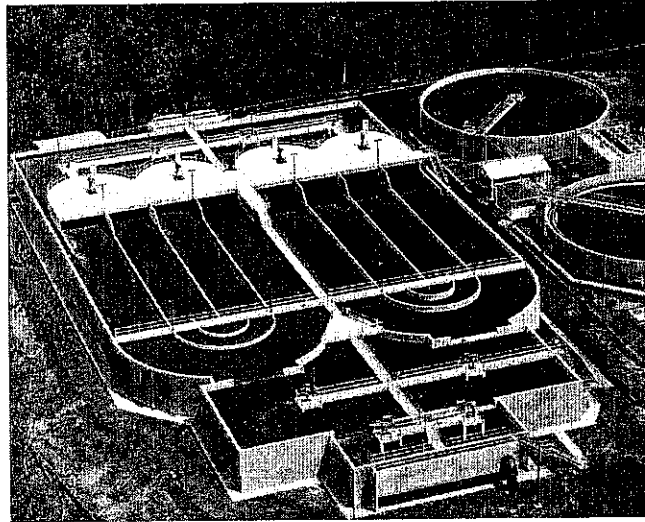


Proposed Regional WWTP

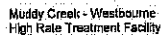
- Design Average Flow: 2 mgd
- Elimination of Existing WWTPs
- Approximate Size: 10-12 Acres
- Must Meet BADCT Criteria
- Nutrient Limitations (Phosphorus)
- State-of-the-Art Design
- No In-Place Sludge Handling Facilities
- Architecturally Pleasing

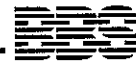


Aerial of Proposed WWTP



Best Available Demonstrated Control Technology (BADCT) Criteria For New Sources Discharging Sanitary Wastewater		
Parameter	30-Day Average	7-Day Average
CBOD, mg/l	10	15
Total Suspended Solids, mg/l	12	18
NH ₄ – N, mg/l		
Summer	1.0	1.5
Winter	3.0	4.5
Dissolved Oxygen, mg/l	6.0 mg/l (minimum)	





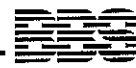
Event Chronology

- NPDES Permit Application Submitted 05/2003
- Public Meeting Held 08/2003
- Comment Period Expired 09/2003
- RFI in Letter from OEPA 11/2003
- NPDES Permit Application Incomplete 02/2004
- County Engages Services of Engineer 04/2004
- Site Recommendation to BoCC 07/2004
- Proposed WWTP Design Complete 12/2004

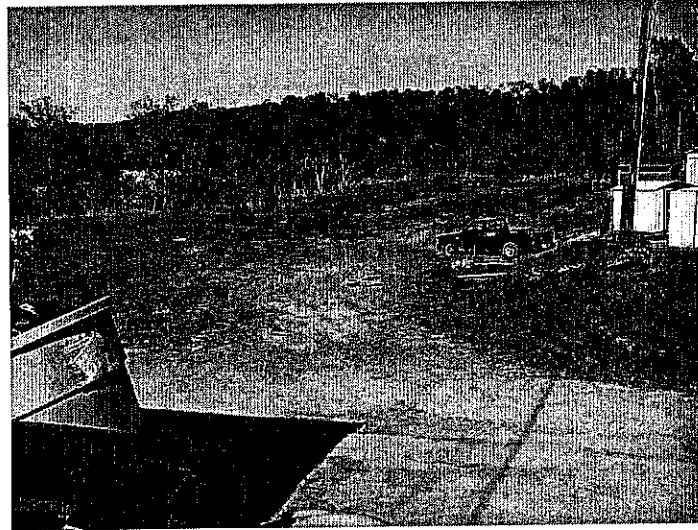


Proposed Sites

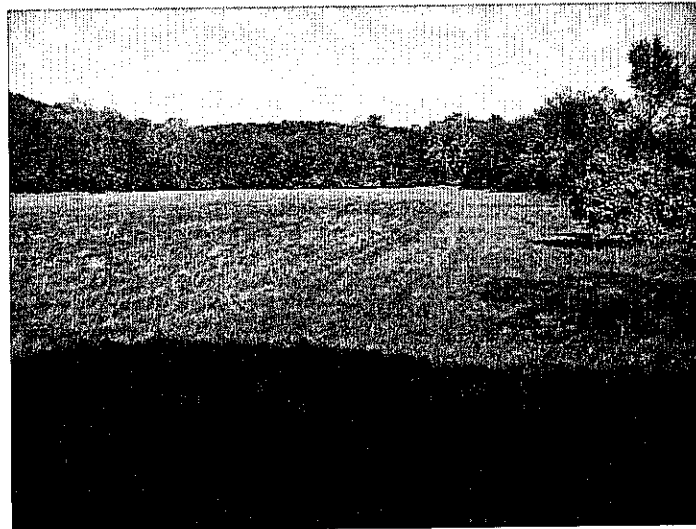
- **RMG** (Northwest of Miamiville between Remington Rd and Bike Trail)
- **MVL** (Northeast of Miamiville off Ward's Corner Rd)
- **WRD** (Adjacent to existing Ward's Corner WWTP)
- **BSA** (Horner's Run area near Camp Craig)
- **BKR/HAAS** (Horner's Run area east of I-275)
- **LMI** (Price Rd at Horner's Run)

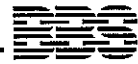


RMG Site (looking east)

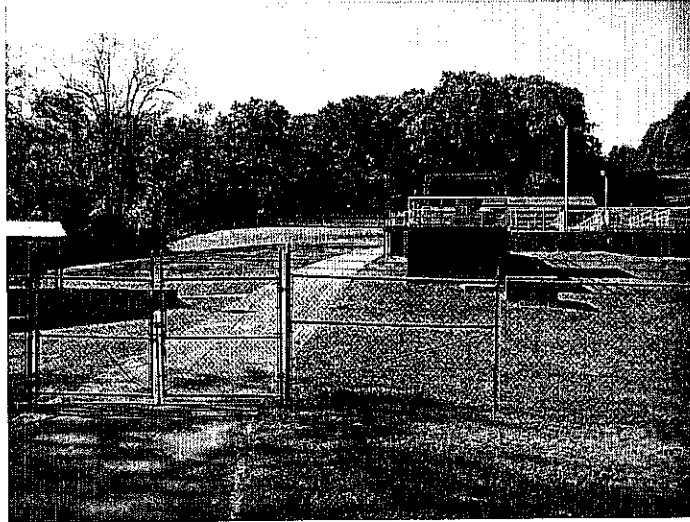


MVL Site (looking east)





WRD Site (looking west)

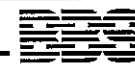
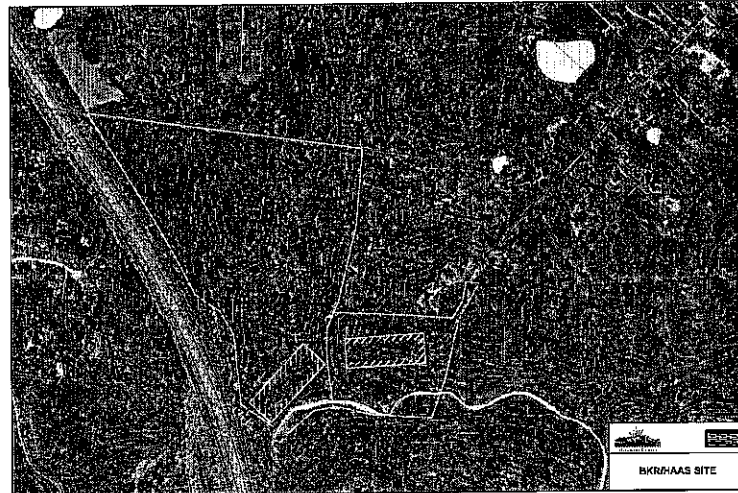


BSA Site (looking west)





BKR/HAAS Site



LMI Sites





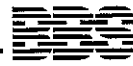
Site Evaluation Criteria

- Economic Criteria
- Non-Economic Criteria



Economic Criteria

- Initial Capital + O&M Costs (WWTP)
- Initial Capital + O&M Costs (Conveyance Sewers and Pump Stations)



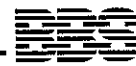
Non-Economic Criteria

- Accessibility
- Land Acquisition
- Buffer Zone
- Topography
- Public Support
- Expandability
- Aquifer Impact
- Permit/Regulatory
- Riparian Zone Impact
- Const Traffic Impact



Accessibility

- Accessible from major roadway with minimum travel on secondary or residential streets



Land Acquisition

- Ability to acquire land on which proposed wastewater treatment facility is to be built



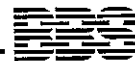
Buffer Zone

- Areas that would normally preclude the encroachment of residential development such as rivers, steep hillsides, preserves or commercial/industrial areas.

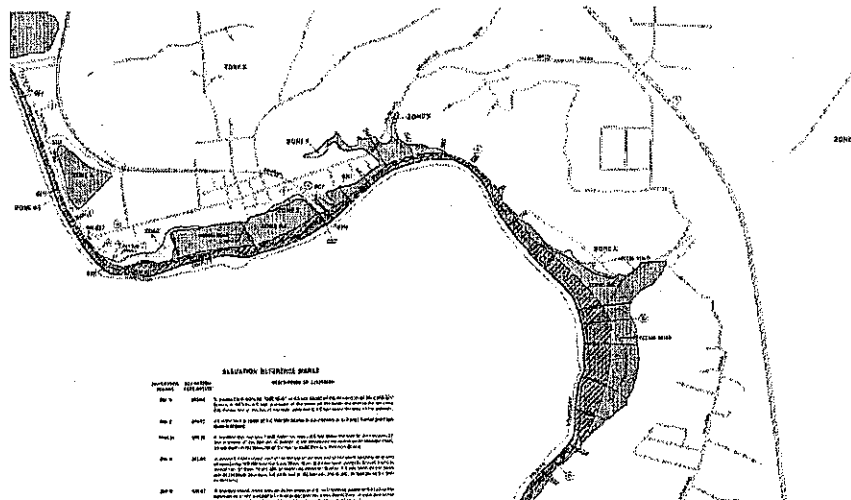


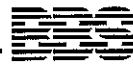
Topography

- Features that offer protection against flooding and that provide for gravity flow with minimal pumping required



Floodway Delineation





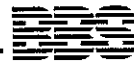
Public Support

- Perception of public acceptance or opposition



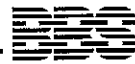
Expandability

- Degree of flexibility to expand to meet growing needs of service area



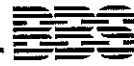
Aquifer Impact

- Degree of impact on aquifers that supply drinking water to existing or planned wellfields



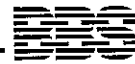
Permitability/Regulatory

- Feasibility of obtaining regulatory approval for NPDES Permit and Permit-to-Install Applications (i.e. degree of regulatory impediment to siting)



Riparian Zone Protection

- Degree to which riparian zone encroachment is required



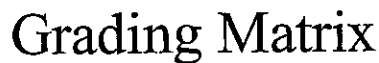
Construction Traffic Impact

- Degree of public inconvenience and the potential of plant construction traffic in residential areas and narrow road rights-of-way



Grades will assigned numerical values as follows to enable a score to be computed for each criterion.

Grade	Numerical Equivalent
A	5
B	4
C	3
D	2
F	1



A raw score will be computed for each evaluation criterion as follows: SCORE = WEIGHT FACTOR (decimal) x GRADE (numerical equivalent)

The weight factor for each criterion will be determined as the average of the results from all valid stakeholder responses

To be valid, the sum of the weight factors shall be equal to 100% and no weight factor shall be assigned a value greater than 30%

Non-conforming or non-responsive evaluations shall be disregarded in the computation of averaging



Criteria Weighting

PRELIMINARY EVALUATION CRITERIA	WEIGHT FACTOR
ACCESSIBILITY	
ACQUISITION OF PROPERTY	
BUFFER ZONE	
TOPOGRAPHY	
PUBLIC SUPPORT	
EXPANDABILITY	
AQUIFER IMPACT	
PERMITABILITY/REGULATORY	
RIPIAN ZONE PROTECTION	
CONSTRUCTION TRAFFIC IMPACT	
CAPITAL/O&M COSTS (WWTP)	
CAPITAL/O&M COSTS (SEWERS+P/S)	
SUM	

Stakeholder Org.: _____

Representative: _____

Date: _____

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Evaluation Matrix

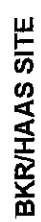
PRELIMINARY EVALUATION CRITERIA	WEIGHT FACTOR	RMG		MVL		WRD		BSA		LMI		BGR/HAAS	
		GRADE	SCORE	GRADE	SCORE	GRADE	SCORE	GRADE	SCORE	GRADE	SCORE	GRADE	SCORE
ACCESSIBILITY													
PROPERTY ACQUISITION													
BUFFER ZONE													
TOPOGRAPHY													
PUBLIC SUPPORT													
EXPANDABILITY													
AQUIFER IMPACT													
PERMITABILITY/REGULATORY													
RIPIAN ZONE PROTECTION													
CONSTRUCTION TRAFFIC IMPACT													
CAPITAL/O&M COSTS (WWTP)													
CAPITAL/O&M COSTS (SEWERS+P/S)													
TOTAL SCORE													
AVERAGE GRADE													
RANK													

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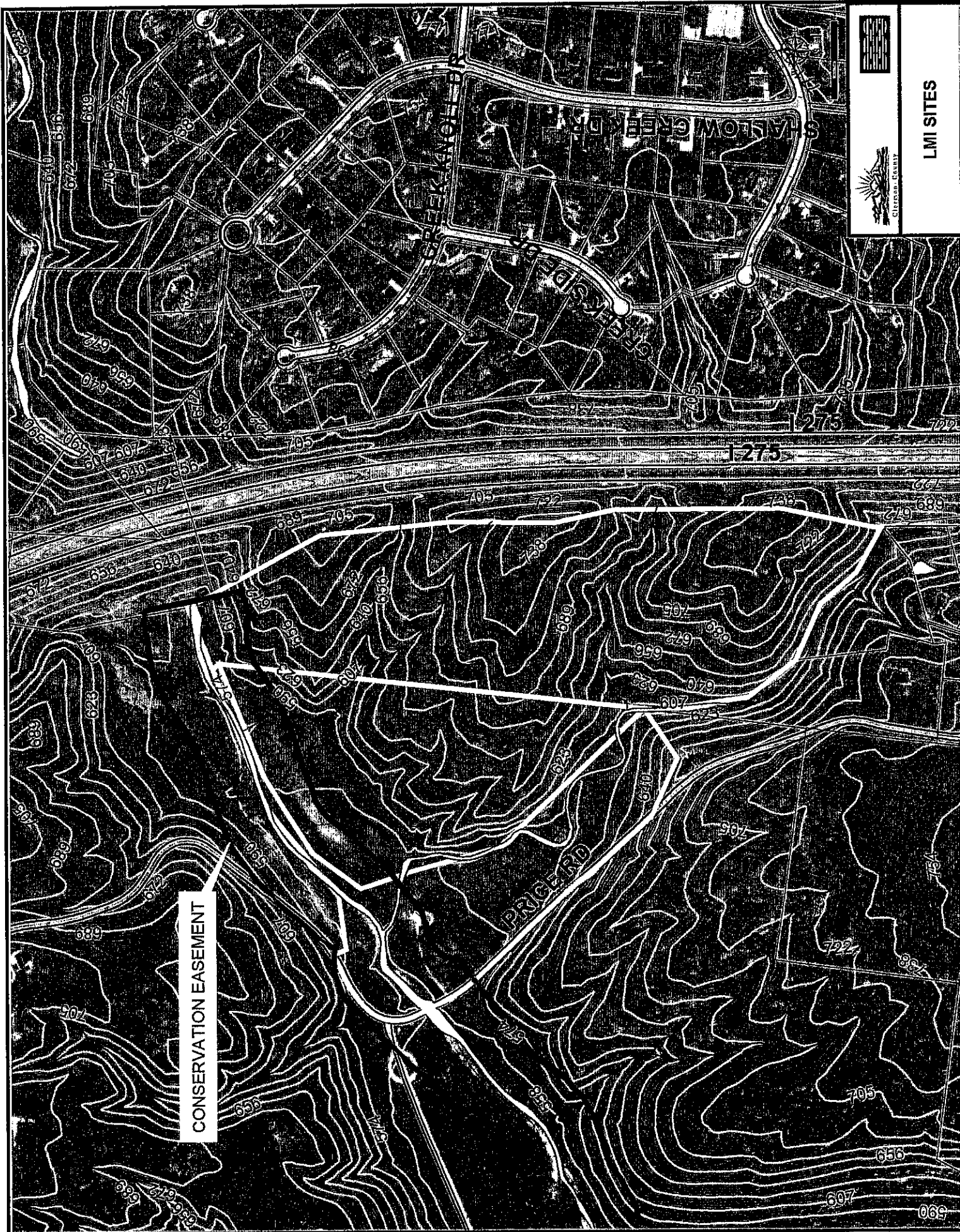
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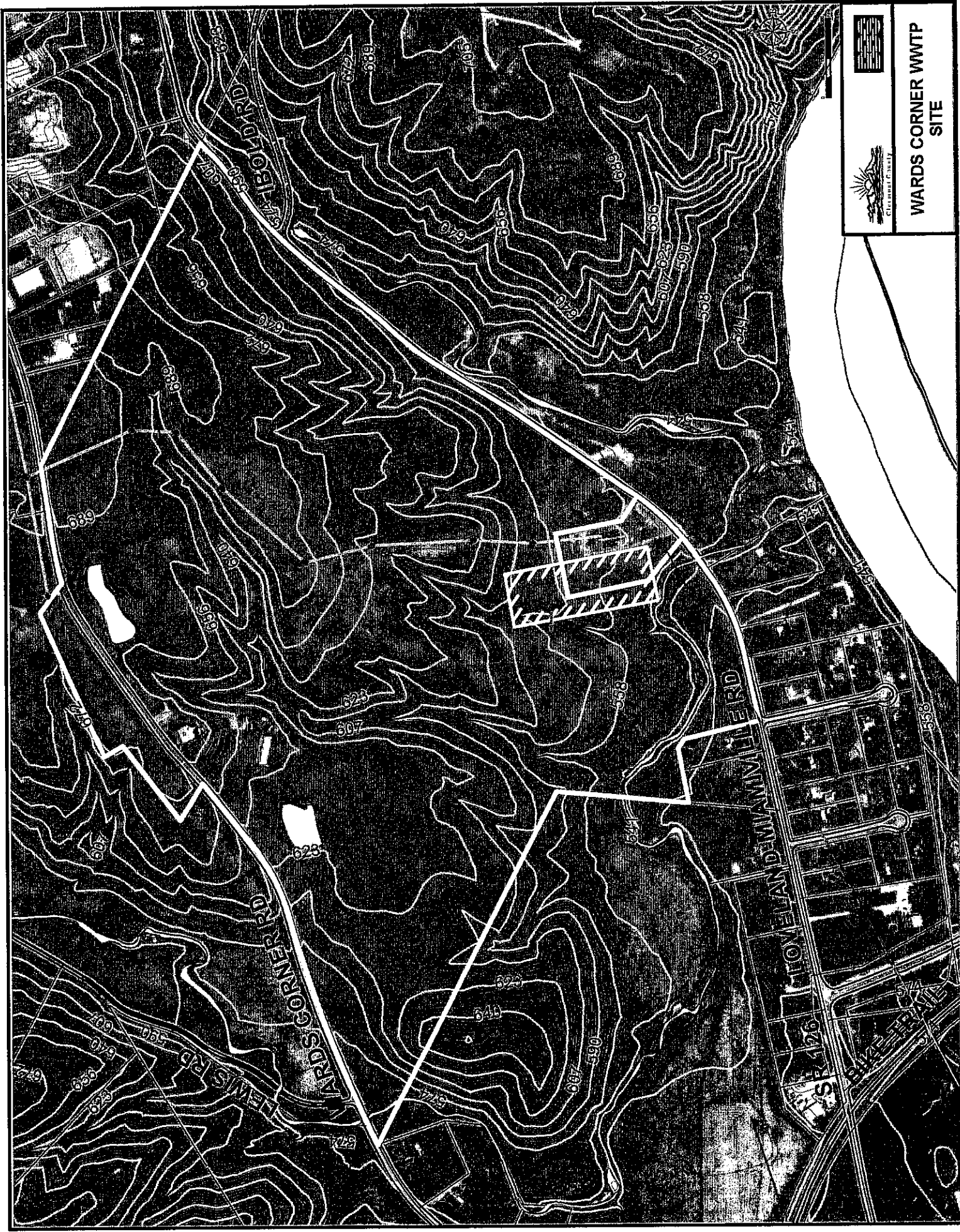
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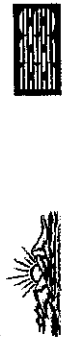


LMI SITES





WARDS CORNER WWTP
SITE



REMINGTON SITE

SITE EVALUATION PROCESS

The County intends to involve local residents and other stakeholders by soliciting their input to the site evaluation process and the location of the proposed new wastewater treatment plant. Candidate locations for the proposed new wastewater treatment plant have been developed in prior planning studies and reports. These include the site locations identified in the 2002 Black & Veatch Report and the Harza Study of 1995. Other sites that have been suggested are located within the lower Horner's Run drainage area, including the Becker and Haas sites located east of Interstate 275 and 4 additional sites within Horner's Run located between Interstate 275 and the Little Miami River.

Today's facilitated workshop is not intended to be a forum for the debate of the treatment plant sites or for the development of new locations. The purpose of the workshop is to discuss the project, review the proposed sites under consideration, present criteria for the evaluation of proposed sites and weighting factors for each of the criteria. Details of the weighting factor process will be explained during the workshop. Presentations will be given by representatives of the Ohio Environmental Protection Agency and Department of Natural Resources and the consulting engineering firm of BBS Corporation.

Following the workshop, the County will review all comments and finalize the criteria. BBS Corporation will then begin the process of evaluating the sites that are under consideration using the criteria and weighting factors determined. Each site selection criterion will be analyzed and given a grade (A, B, C, D or F) that will be applied to its weighting factor to determine a score. To enable a score to be computed, each grade will have a numerical equivalence as follows: A=5, B=4, C=3, D=2 and F=1).

After cost estimates have been prepared for each candidate site, the results will be summarized and presented to the County. A site recommendation will be given to the Board of County Commissioners in mid-July 2004 for the proposed new wastewater treatment plant that will serve the Loveland/Horner's Run facility planning area.

PROPOSED SITE EVALUATION CRITERIA

Accessibility – Site is graded "excellent" if they are accessible from a state route or major highway with a minimum of travel on secondary or residential streets. Site is graded "poor" if it requires significant travel on secondary roads and/or streets serving residential areas.

Property Acquisition – Site is graded "very easy" if it is anticipated that land can be acquired easily as would be the case of a willing seller. Site will be graded "very difficult" if it is anticipated that land acquisition will be tenuous as in the case of an uncooperative seller.

Buffer Zone – Buffer zones are areas such as rivers, hillsides, woods or commercial/ industrial areas that would normally preclude the subsequent encroachment of residential development. Site is graded "excellent" if it has an existing buffer zone surrounding it and/or future residential encroachment is not anticipated and is graded "poor" if it has little or no buffer zone and/or future residential development is anticipated.

Topography – Site is graded "excellent" if flood protection structures or embankments are not required and hydraulic design facilitates gravity flow with minimal pumping required. Site is graded "poor" if flood protection structures are required or topographic relief requires excessive pumping.

Public Support – Site is graded “very high” if perception of public support exists and graded “very low” if significant public opposition exists.

Expandability – Site is graded “very high” if it offers significant flexibility and potential to expand and graded “very low” if it does not offer any significant flexibility or expandability potential.

Aquifer Impact – Site is graded “negligible” if it has no or minimal impact on existing or planned drinking water aquifers and is graded “very high” if site encroaches on existing or planned drinking water aquifers.

Permitability/Regulatory – Site is graded “excellent” if a permitted wastewater treatment outfall exists adjacent or near to the proposed site that could be modified for use and/or a permit-to-install could be obtained without regulatory impediment and is graded “poor” if a permitted wastewater treatment outfall does not exist near or adjacent to the site and/or if strong regulatory disapproval exists.

Riparian Zone Protection – Riparian zones typically consist of vegetated corridors that protect stream channels from erosion and which help to regulate stream water temperature. Site is graded “excellent” if riparian zone encroachment is not required as a result of construction activities and is graded “poor” if riparian zone encroachment may be required.

Construction Traffic Impact – The degree of public inconvenience is based on the amount of anticipated construction within narrow road rights-of-way and the potential impact of plant construction traffic in residential areas. Site is graded “negligible” if it has minimal construction within narrow ROWs and the plant will generate little construction traffic in residential areas. Site is graded “very high” if it will have significant construction within narrow ROWs and/or will generate significant construction in residential areas.

Initial Capital and O&M Costs – Capital cost is the initial cost of plant, trunk sewer and pump station construction, including engineering and administration costs. Operation and maintenance (O&M) costs include the cost to operate and maintain all required facilities. Grading will be “high” if costs are comparatively low and “low” if costs are comparatively high.

**CLERMONT COUNTY SEWER DISTRICT
LOVELAND-HORNER'S RUN FACILITY
WWTP SITE EVALUATION MATRIX**

[illegible]

... scores will be computed for each evaluation criterion as follows: SCORE = WEIGHT FACTOR (decimal) x GRADE (numerical equivalent)

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CLERMONT COUNTY SEWER DISTRICT
LOVELAND-HORNER'S RUN FACILITY PLANNING AREA
MATRIX GRADING CRITERIA

EVALUATION CRITERIA					GRADE
Accessibility					
Buffer Zone					A
Topography					B
Permit/Regulatory					C
Ripar Zone Protect					D
					F
DESCRIPTION					GRADE
Excellent	Negligible	Very High	Very Easy		
Good	Low	High	Easy		A
Average	Medium	Medium	Average		B
Below Average	High	Low	Difficult		C
Poor	Very High	Very Low	Very Difficult		D

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